

Patrick Schleppi

List of Publications by Year in descending order

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Version: 2024-02-01

93
papers

4,657
citations

109321

35
h-index

102487

66
g-index

99
all docs

99
docs citations

99
times ranked

5205
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitrogen deposition makes a minor contribution to carbon sequestration in temperate forests. <i>Nature</i> , 1999, 398, 145-148.	27.8	676
2	Title is missing!. <i>Biogeochemistry</i> , 2000, 50, 137-161.	3.5	206
3	Sinks for nitrogen inputs in terrestrial ecosystems: a meta-analysis of ¹⁵ N tracer field studies. <i>Ecology</i> , 2012, 93, 1816-1829.	3.2	192
4	Regional Assessment of N Saturation using Foliar and Root $\delta^{15}\text{N}$. <i>Biogeochemistry</i> , 2006, 80, 143-171.	3.5	172
5	Correcting non-linearity and slope effects in the estimation of the leaf area index of forests from hemispherical photographs. <i>Agricultural and Forest Meteorology</i> , 2007, 144, 236-242.	4.8	159
6	Predicting the Effects of Atmospheric Nitrogen Deposition in Conifer Stands: Evidence from the NITREX Ecosystem-Scale Experiments. <i>Ecosystems</i> , 1998, 1, 352-360.	3.4	153
7	Estimating leaf area index in different types of mature forest stands in Switzerland: a comparison of methods. <i>European Journal of Forest Research</i> , 2010, 129, 543-562.	2.5	153
8	Rare earth elements in soil and in soil-grown plants. <i>Plant and Soil</i> , 1998, 199, 267-273.	3.7	148
9	Central European hardwood trees in a high-CO ₂ future: synthesis of an 8-year forest canopy CO ₂ enrichment project. <i>Journal of Ecology</i> , 2013, 101, 1509-1519.	4.0	141
10	Effect of irrigation on needle morphology, shoot and stem growth in a drought-exposed <i>Pinus sylvestris</i> forest. <i>Tree Physiology</i> , 2010, 30, 346-360.	3.1	107
11	Soil warming opens the nitrogen cycle at the alpine treeline. <i>Global Change Biology</i> , 2017, 23, 421-434.	9.5	96
12	Input-output budgets at the NITREX sites. <i>Forest Ecology and Management</i> , 1998, 101, 57-64.	3.2	90
13	Canopy closure, LAI and radiation transfer from airborne LiDAR synthetic images. <i>Agricultural and Forest Meteorology</i> , 2014, 197, 158-168.	4.8	86
14	Effects of Redox Conditions and Flow Processes on the Mobility of Dissolved Organic Carbon and Nitrogen in a Forest Soil. <i>Journal of Environmental Quality</i> , 2000, 29, 288-297.	2.0	84
15	Nitrogen budgets of two small experimental forested catchments at Alptal, Switzerland. <i>Forest Ecology and Management</i> , 1998, 101, 177-185.	3.2	77
16	Runoff-driven export of particulate organic carbon from soil in temperate forested uplands. <i>Earth and Planetary Science Letters</i> , 2013, 365, 198-208.	4.4	77
17	The response of methane and nitrous oxide fluxes to forest change in Europe. <i>Biogeosciences</i> , 2012, 9, 3999-4012.	3.3	74
18	Growth and carbon relations of mature <i>Picea abies</i> trees under 5 years of free-air CO ₂ enrichment. <i>Journal of Ecology</i> , 2016, 104, 1720-1733.	4.0	68

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19	Contrasting dynamics of dissolved inorganic and organic nitrogen in soil and surface waters of forested catchments with Gleysols. <i>Geoderma</i> , 2001, 100, 173-192.	5.1	66
20	Nitrogen saturation experiments (NITREX) in coniferous forest ecosystems in Europe: a summary of results. <i>Environmental Pollution</i> , 1998, 102, 433-437.	7.5	64
21	Negative responses of Collembola in a forest soil (Alptal, Switzerland) under experimentally increased N deposition. <i>Environmental Pollution</i> , 2009, 157, 2030-2036.	7.5	63
22	Increased rates of denitrification in nitrogen-treated forest soils. <i>Forest Ecology and Management</i> , 2000, 137, 113-119.	3.2	61
23	Title is missing!. <i>Water, Air, and Soil Pollution</i> , 1999, 116, 129-134.	2.4	60
24	The accumulation of the rare earth elements and of scandium in successive needle age classes of Norway spruce. <i>Biological Trace Element Research</i> , 1994, 41, 13-29.	3.5	56
25	Pathways and dynamics of $^{15}\text{NO}_3^-$ and $^{15}\text{NH}_4^+$ applied in a mountain <i>Picea abies</i> forest and in a nearby meadow in central Switzerland. <i>Soil Biology and Biochemistry</i> , 2006, 38, 1645-1657.	8.8	56
26	Does exceeding the critical loads for nitrogen alter nitrate leaching, the nutrient status of trees and their crown condition at Swiss Long-term Forest Ecosystem Research (LWF) sites?. <i>European Journal of Forest Research</i> , 2010, 129, 443-461.	2.5	54
27	Atmospheric nitrogen deposition and canopy retention influences on photosynthetic performance at two high nitrogen deposition Swiss forests. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 2022, 64, 17216.	1.6	54
28	Soil-atmosphere fluxes of the greenhouse gases CO_2 , CH_4 and N_2O in a mountain spruce forest subjected to long-term N addition and to tree girdling. <i>Agricultural and Forest Meteorology</i> , 2013, 181, 61-68.	4.8	52
29	The Role of Rapid Flow Paths for Nitrogen Transformation in a Forest Soil A Field Study with Micro Suction Cups. <i>Soil Science Society of America Journal</i> , 1999, 63, 1915-1923.	2.2	47
30	Estimating leaf area index of mature temperate forests using regressions on site and vegetation data. <i>Forest Ecology and Management</i> , 2011, 261, 601-610.	3.2	47
31	Increased nitrate availability in the soil of a mixed mature temperate forest subjected to elevated CO_2 concentration (canopy FACE). <i>Global Change Biology</i> , 2012, 18, 757-768.	9.5	47
32	Flood pulses control soil nitrogen cycling in a dynamic river floodplain. <i>Geoderma</i> , 2014, 228-229, 14-24.	5.1	45
33	Multivariate interpretation of the foliar chemical composition of Norway spruce (<i>Picea abies</i>). <i>Plant and Soil</i> , 2000, 219, 251-262.	3.7	44
34	Retention and Leaching of Elevated N Deposition in a Forest Ecosystem with Gleysols. <i>Water, Air, and Soil Pollution</i> , 2001, 129, 119-142.	2.4	44
35	Flow of Deposited Inorganic N in Two Gleysol-dominated Mountain Catchments Traced with $^{15}\text{NO}_3^-$ and $^{15}\text{NH}_4^+$. <i>Biogeochemistry</i> , 2005, 76, 453-475.	3.5	39
36	Water content and bark thickness of Norway spruce (<i>Picea abies</i>) stems: phloem water capacitance and xylem sap flow. <i>Tree Physiology</i> , 2002, 22, 613-623.	3.1	38

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37	Seasonality of the Na/Cl ratio in precipitation and implications of canopy leaching in validating chemical analyses of throughfall samples. <i>Atmospheric Environment</i> , 2008, 42, 9106-9117.	4.1	37
38	Structural diversity of abandoned chestnut (<i>Castanea sativa</i> Mill.) dominated forests: Implications for forest management. <i>Forest Ecology and Management</i> , 2013, 291, 326-335.	3.2	37
39	Nitrate Leaching From a Mountain Forest Ecosystem with Gleysols Subjected to Experimentally Increased N Deposition. <i>Water, Air and Soil Pollution</i> , 2004, 4, 453-467.	0.8	33
40	Vertical Redistribution of Soil Organic Carbon Pools After Twenty Years of Nitrogen Addition in Two Temperate Coniferous Forests. <i>Ecosystems</i> , 2019, 22, 379-400.	3.4	33
41	Total deposition of nitrogen in Swiss forests: Comparison of assessment methods and evaluation of changes over two decades. <i>Atmospheric Environment</i> , 2019, 198, 335-350.	4.1	32
42	Errors of flux integration methods for solutes in grab samples of runoff water, as compared to flow-proportional sampling. <i>Journal of Hydrology</i> , 2006, 319, 266-281.	5.4	30
43	¹⁵ N immobilization in forest soil: a sterilization experiment coupled with ¹⁵ CPMAS NMR spectroscopy. <i>European Journal of Soil Science</i> , 2008, 59, 467-475.	3.9	30
44	Nitrate leaching from a sub-alpine coniferous forest subjected to experimentally increased N deposition for 20 years, and effects of tree girdling and felling. <i>Biogeochemistry</i> , 2017, 134, 319-335.	3.5	30
45	Concentrations of nutritional and trace elements in needles of Norway spruce (<i>Picea abies</i> [L.] Karst.) as functions of the needle age class. <i>Plant and Soil</i> , 1995, 168-169, 305-312.	3.7	29
46	Growth enhancement of <i>Picea abies</i> trees under long-term, low-dose N addition is due to morphological more than to physiological changes. <i>Tree Physiology</i> , 2012, 32, 1471-1481.	3.1	28
47	Nitrex: The timing of response of coniferous forest ecosystems to experimentally-changed nitrogen deposition. <i>Water, Air, and Soil Pollution</i> , 1995, 85, 1623-1628.	2.4	27
48	Accuracy and precision of different sampling strategies and flux integration methods for runoff water: comparisons based on measurements of the electrical conductivity. <i>Hydrological Processes</i> , 2006, 20, 395-410.	2.6	27
49	Determination of total dissolved nitrogen by persulfate oxidation. <i>Journal of Plant Nutrition and Soil Science</i> , 2000, 163, 81-82.	1.9	26
50	Equations to compensate for the temperature effect on readings from dielectric Decagon MPS-2 and MPS-6 water potential sensors in soils. <i>Journal of Plant Nutrition and Soil Science</i> , 2018, 181, 749-759.	1.9	26
51	Citric acid traps to replace sulphuric acid in the ammonia diffusion of dilute water samples for ¹⁵ N analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2006, 20, 629-634.	1.5	24
52	Variability in ¹⁴ C contents of soil organic matter at the plot and regional scale across climatic and geologic gradients. <i>Biogeosciences</i> , 2016, 13, 3427-3439.	3.3	23
53	A robust leaf area index algorithm accounting for the expected errors in gap fraction observations. <i>Agricultural and Forest Meteorology</i> , 2018, 248, 197-204.	4.8	23
54	Soil Nitrogen Dynamics in a River Floodplain Mosaic. <i>Journal of Environmental Quality</i> , 2012, 41, 2033-2045.	2.0	22

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55	Estimating below-canopy light regimes using airborne laser scanning: An application to plant community analysis. <i>Ecology and Evolution</i> , 2019, 9, 9149-9159.	1.9	22
56	Shade tolerance of <i>Ailanthus altissima</i> revisited: novel insights from southern Switzerland. <i>Biological Invasions</i> , 2017, 19, 455-461.	2.4	21
57	Resistant Soil Microbial Communities Show Signs of Increasing Phosphorus Limitation in Two Temperate Forests After Long-Term Nitrogen Addition. <i>Frontiers in Forests and Global Change</i> , 2019, 2, .	2.3	21
58	Dynamics of deep soil carbon – insights from $\delta^{14}C$ time series across a climatic gradient. <i>Biogeosciences</i> , 2019, 16, 3233-3246.	3.3	20
59	The concentration of Ca, Sr, Ba and Mn in successive needle age classes of Norway spruce [<i>Picea abies</i> (L.) Karst.]. <i>Trees - Structure and Function</i> , 1995, 10, 31.	1.9	19
60	Seasonal variations of throughfall chemistry in pure and mixed stands of Oriental beech (<i>Fagus sylvatica</i>) and Norway spruce (<i>Picea abies</i>) in a mountain forest. <i>Tree-Ring Analysis</i> , 2010, 10, 19-50.	2.0	19
61	Only Minor Changes in the Soil Microbiome of a Sub-alpine Forest After 20 Years of Moderately Increased Nitrogen Loads. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	19
62	Reassessment of the NH_4^+ / NO_3^- thermal decomposition technique for calibration of the N_2O isotopic composition. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 2487-2496.	1.5	17
63	Nitrogen dynamics in oak model ecosystems subjected to air warming and drought on two different soils. <i>Plant Biology</i> , 2013, 15, 220-229.	3.8	16
64	Long-term tracing of whole catchment ^{15}N additions in a mountain spruce forest: measurements and simulations with the TRACE model. <i>Trees - Structure and Function</i> , 2012, 26, 1683-1702.	1.9	15
65	The mobility of nitrogen across tree-rings of Norway spruce (<i>Picea abies</i> L.) and the effect of extraction method on tree-ring $\delta^{15}N$ and $\delta^{13}C$ values. <i>Rapid Communications in Mass Spectrometry</i> , 2014, 28, 1258-1264.	1.5	15
66	Vertical light transmission profiles in structured mixed deciduous forest canopies assessed by UAV-based hemispherical photography and photogrammetric vegetation height models. <i>Agricultural and Forest Meteorology</i> , 2020, 281, 107843.	4.8	15
67	Lessons learned from a long-term irrigation experiment in a dry Scots pine forest: Impacts on traits and functioning. <i>Ecological Monographs</i> , 2022, 92, e1507.	5.4	15
68	The concentrations of K, Rb and Cs in spruce needles (<i>Picea abies</i> Karst.) and in the associated soils. <i>Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science</i> , 1995, 158, 499-504.	0.4	14
69	Variation of the rare earth element concentrations in the soil, soil extract and in individual plants from the same site. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 1998, 231, 101b-106.	1.5	14
70	Forest Management and the Water Cycle. <i>Ecological Studies</i> , 2011, .	1.2	14
71	The fate of nitrogen inputs in a warmer alpine treeline ecosystem: a ^{15}N labelling study. <i>Journal of Ecology</i> , 2017, 105, 1723-1737.	4.0	14
72	Increased Nitrogen Availability in the Soil Under Mature <i>Picea abies</i> Trees Exposed to Elevated CO_2 Concentrations. <i>Frontiers in Forests and Global Change</i> , 2019, 2, .	2.3	14

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73	Retention and hydrolysable fraction of atmospherically deposited nitrogen in two contrasting forest soils in Switzerland. <i>European Journal of Soil Science</i> , 2010, 61, 197-206.	3.9	13
74	Concentration–Discharge Relationships of Dissolved Rhenium in Alpine Catchments Reveal Its Use as a Tracer of Oxidative Weathering. <i>Water Resources Research</i> , 2021, 57, e2021WR029844.	4.2	13
75	Leaf Morphological Traits and Leaf Nutrient Concentrations of European Beech Across a Water Availability Gradient in Switzerland. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	12
76	Runoff processes in catchments with a small scale topography. <i>Physics and Chemistry of the Earth</i> , 1996, 21, 177-181.	0.3	11
77	Decadal fates and impacts of nitrogen additions on temperate forest carbon storage: a data–model comparison. <i>Biogeosciences</i> , 2019, 16, 2771-2793.	3.3	10
78	Rubidium and cesium in spruce needles. <i>Biological Trace Element Research</i> , 1994, 43-45, 195-205.	3.5	9
79	The long-term fate of deposited nitrogen in temperate forest soils. <i>Biogeochemistry</i> , 2020, 150, 1-15.	3.5	8
80	QUALITY WOOD PRODUCTION FROM CHESTNUT (<i>CASTANEA SATIVA</i> MILL.) COPPICE FORESTS - COMPARISON BETWEEN DIFFERENT SILVICULTURAL APPROACHES. <i>Acta Horticulturae</i> , 2010, , 683-692.	0.2	8
81	Dynamics of Atmospheric Nitrogen Deposition in a Temperate Calcareous Forest Soil. <i>Journal of Environmental Quality</i> , 2008, 37, 2012-2021.	2.0	7
82	Responses of soil Collembola to long-term atmospheric CO ₂ enrichment in a mature temperate forest. <i>Environmental Pollution</i> , 2013, 173, 23-28.	7.5	7
83	Solar Radiation in Forests: Theory for Hemispherical Photography. <i>Managing Forest Ecosystems</i> , 2017, , 15-52.	0.9	7
84	Variation in Leaf Morphological Traits of European Beech and Norway Spruce Over Two Decades in Switzerland. <i>Frontiers in Forests and Global Change</i> , 2022, 4, .	2.3	7
85	Photosynthate Partitioning in Flowering Soybeans Subjected to a Cold Stress. <i>Journal of Plant Physiology</i> , 1990, 136, 556-563.	3.5	6
86	GROWTH DYNAMICS AND LEAF AREA INDEX IN CHESTNUT COPPICES SUBJECTED TO A NEW SILVICULTURAL APPROACH: SINGLE-TREE-ORIENTED MANAGEMENT. <i>Acta Horticulturae</i> , 2014, , 121-128.	0.2	6
87	Some properties of the ash from spruce needles. <i>Communications in Soil Science and Plant Analysis</i> , 1993, 24, 1557-1566.	1.4	3
88	Forested Water Catchments in a Changing Environment. <i>Ecological Studies</i> , 2010, , 89-110.	1.2	3
89	Nitrogen deposition and carbon sequestration. <i>Nature</i> , 1999, 400, 630-630.	27.8	2
90	Experimental Design and Interpretation of Terrestrial Ecosystem Studies Using ¹⁵ N Tracers: Practical and Statistical Considerations. <i>Frontiers in Environmental Science</i> , 2021, 9, .	3.3	2

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91	Nitrate Leaching from a Mountain Forest Ecosystem with Gleysols Subjected to Experimentally Increased N Deposition. , 2004, , 453-467.		1
92	Déplacements atmosphériques azotés et leurs effets en forêt: un bilan des sites d'observation à long terme. Schweizerische Zeitschrift Fur Forstwesen, 2012, 163, 343-354.	0.1	1
93	Determination of total dissolved nitrogen by persulfate oxidation. Journal of Plant Nutrition and Soil Science, 2000, 163, 81-82.	1.9	0